

JUN 7 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
Agriculture Research Service
Entomology Research Branch

June 2, 1954

Postbox 85
Curacao, N. A.

To: R. C. Bushland

From: A. H. Baumhover

Subject: Weekly Report - Curacao

EGG MASS COLLECTION AND FLY RELEASE DATA
Number of fertile and sterile egg masses at goat pens

	1		2		3		4		5		6		7		8		9		10		11		Total	
Date	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
5/24	9	1	2	1	6	0	2	1	3	1	6	1	3	0	8	1	5	1	0	0	0	0	44	7
25	4	0	2	2	4	0	0	1	1	2	4	0	0	0	10	2	3	0	0	0	4	0	32	7
26	10	1	3	1	1	1	4	0	0	0	4	3	2	0	12	1	0	0	0	0	0	0	36	7
27	2	2	2	0	2	0	0	0	2	0	4	0	2	1	5	0	0	1	1	1	3	3	23	8
28	3	3	0	2	1	3	2	0	1	0	3	0	4	0	9	0	2	0	1	0	5	3	31	11
29	6	2	2	0	6	2	1	0	1	0	1	1	1	0	9	1	2	0	0	0	3	1	32	7
30	2	1	1	0	0	2	1	1	0	0	2	0	3	2	3	0	2	0	1	1	6	3	21	10
	36	10	12	6	20	8	10	3	8	3	24	5	15	3	56	5	14	2	3	2	21	10	219	57

Sterility 16.6%

7,500 r (pens 6, 7, 8, 9, 11)

No. Fertile 130

No. Sterile 25

Total 155

Sterility 26.4%

5,000 r (pens 1, 2, 3, 4, 5, 10)

No. Fertile 89

No. Sterile 32

Total 121

No. of males released 1/

5/28 7630 5,000 r

6820 7,500 r

1/ 7,500 r males released on upper half and 5,000 r males released on lower half of island

JUN 7 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
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Postbox 85
Curacao, N. A.

June 2, 1954

To: R. G. Bushland

From: A. H. Baumhauer

Subject: Weekly Report - Curacao

EGG MASS COLLECTION AND FLY RELEASE DATA
Number of fertile and sterile egg masses at each pen

Date	1	2	3	4	5	6	7	8	9	10	11	Total
5/24	1	2	1	2	1	1	3	1	1	0	0	44
25	4	0	2	4	0	1	1	2	0	0	4	32
26	10	1	3	1	1	4	0	4	2	0	0	36
27	2	2	2	0	2	0	4	0	2	1	3	23
28	3	3	0	2	1	3	0	3	0	1	5	31
29	2	2	2	0	2	1	1	1	2	0	3	32
30	2	1	1	0	1	1	1	3	2	1	6	31
31	10	12	6	20	8	24	15	26	14	3	21	219

Total 156
No. Sterile 28
No. Fertile 130
Sterility 18.6%
7,500 r (pens 6, 7, 8, 9, 11)

Total 121
No. Sterile 32
No. Fertile 89
Sterility 26.4%
5,000 r (pens 1, 2, 3, 4, 5, 10)

No. of males released 1

5/28 7,500 r
6820 7,500 r

1/ 7,500 r males released on upper half and 5,000 r males released on lower half of island

In view of your memorandum of May 25, 1954, in which you suggest including 4 days record following a new type release--with the record of the previous release and then allowing a 7 day lag before tabulating data for the new release, this weekly report includes the record of May 24 and 25, previously reported, along with the data through May 30. However, the numbers of flies released, previously reported, have not been repeated in this tabulation.

Since release numbers for May 12th, 14th and 18th were not tabulated according to dosage a complete table of the releases to date involving flies of 5000 r and 7500 r is presented below:

	5000 r	7500 r
5/12	3350	3695
5/14	3365	3920
5/18	4368	4080
5/21	2480	2880
5/25	4140	4680
5/28	7630	6820

Previous to May 28 the numbers released were falling behind the 100/sq.mi./wk. and since Mr. Graham indicated that the release following May 28 would also be short, the number for May 28 was increased, since at that time we had a double shipment available.

Although it may be early to attempt an interpretation of the data from the 5000 r and 7500 r releases, particularly if a difference in longevity exists, the following table summarizes my interpretation of the data from May 24 through 30:

	5000 r (6 pens)	7500 r (5 pens)
Total egg masses	121	155
Average masses per pen per day	2.9	4.4
Average population density per sq. mi. (2.9 x 55) including both sexes	160	244
Released males per sq. mi. (Using May 18 & 21 releases)	81	82
Expected sterility	50.3%	40.0%
Actual sterility	26.4%	16.6%

To help Mr. Graham with the Curacao strain pupae in the amounts of 140 cc on May 26 and 215 cc on May 29 were sent to Orlando.

cc: A. W. Lindquist
A. H. Graham
G. W. Eddy

A. H. Baumhauer

In view of your memorandum of May 25, 1954, in which you suggest including a days record following a new type release--with the record of the previous release and then allowing a 7 day lag before tabulating data for the new release, this weekly report includes the record of May 24 and 25, previously reported, along with the data through May 30. However, the numbers of flies released, previously reported, have not been repeated in this tabulation.

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5/12	3350	3695
5000 r		7500 r

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Although it may be early to attempt an interpretation of the data from the 5000 r and 7500 r releases, particularly if a difference in longevity exists, the following table summarizes my interpretation of the data from May 24 through 30:

5000 r (6 pens)	7500 r (5 pens)
Total egg masses	121
Average masses per pen	156
per day	4.8
Average population density per sp. mi. (2.9 x 55)	247
including both sexes	180
Released males per sp. mi. (Using May 18 & 21 releases)	81
Expected sterility	50.3%
Actual sterility	26.4%
	82
	40.0%
	16.6%

To help Mr. Graham with the Curacao study 140 cc on May 26 and 215 cc on May 29 were sent to Orlando.

cc: A.W. Lindquist
A.E. Graham
C.W. Eddy

CH. Bushland

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

JUN 11 1954

June 7, 1954

Postbox 85
Curacao, N. A.

To: Dr. A. W. Lindquist, Head, Section of Insects Affecting Man & Animals

From: A. H. Baumhover

Subject: Weekly Report - Curacao

EGG MASS COLLECTIONS
Number of fertile and sterile egg masses at goat pens

Date	1		2		3		4		5		6		7		8		9		10		11		Totals	
	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
5/31	3	0	1	0	0	0	1	0	1	0	0	0	3	0	6	2	3	1	0	0	10	0	28	3
6/1	4	0	2	0	1	0	1	0	0	0	1	0	1	0	3	0	6	0	0	0	6	1	25	1
2	2	2	1	0	1	0	1	0	0	0	1	0	1	0	3	1	2	0	0	0	9	2	21	5
3	4	2	1	0	2	0	0	0	0	0	1	0	4	0	4	1	6	0	0	0	11	3	33	6
4	5	4	0	0	3	0	2	0	1	0	2	1	1	0	2	1	3	0	0	0	11	2	30	8
5	2	2	0	2	1	1	1	0	1	1	1	0	0	0	2	1	4	0	0	0	9	1	21	8
6	<u>7</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>4</u>	<u>1</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>10</u>	<u>2</u>	<u>28</u>	<u>10</u>
	27	13	5	2	10	2	8	0	4	1	6	3	10	1	24	7	26	1	0	0	66	11	186	41

FLIES RELEASED

6/4--5000r 3552
7500r 4118 1/

INTERPRETATION OF DATA

	5000 r (Pens 1, 2,3,4,5, and 10)	7500 r Pens 6,7,8,9,and 11)
Number of fertile egg masses	54	132
Number of sterile egg masses	18	23
Total number of egg masses	72	155
Sterility	25%	15%
Average Number of masses/pen/day	1.71	4.43
Estimated natural population density/sq.mi.	94	244
Average sterile male density/sq.mi.	85	91
Theoretical sterility	64%	43%
Efficiency of release	39%	34%
(Efficiency of previous week)	(52%)	(40%)

1/ Entire release by auto since excessive wind made flying hazardous.

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(Efficiency of previous week)

Efficiency of release

Theoretical sterility

Average sterile male density/sp.m.

Estimated natural population density/sp.m.

Average Number of masses/pen/day

Sterility

Total number of egg masses

Number of sterile egg masses

Number of fertile egg masses

INTERPRETATION OF DATA

5000 r (Pens 1, 7500 r, Pens 6, 7, 8, 9, and 11)	54	5.3, 4.5,
	18	and 10)
	73	
	155	
	15%	
	4.43	
	344	
	91	
	43%	
	34%	
	(40%)	

(52%)

1.71

4.43

94

344

85

91

73

155

18

23

54

135

7500 r
4118 1/

3552

FILES RELEASED

Date	1	2	3	4	5	6	7	8	9	10	11	Totals
5/21	3	1	0	1	1	0	3	2	3	0	10	28
6/1	4	2	1	1	0	1	1	2	6	0	6	25
2	2	1	1	1	0	1	1	3	2	0	9	21
3	4	1	2	0	0	1	4	1	6	0	11	33
4	5	0	3	2	1	2	1	3	0	0	11	30
5	2	2	1	1	1	1	0	2	4	0	9	21
6	7	0	2	2	1	0	1	4	2	0	10	28
27 13	5	2	10	8	4	3	10	7	26	1	66	186

Number of fertile and sterile egg masses at each pen

EGG MASS COLLECTIONS

Subject: Weekly Report - Curacao

From: A. H. Baumhauer

To: Dr. A. W. Lindquist, Head, Section of Insects Affecting Man & Animals

Curacao, N. A.
Postbox 85

June 7, 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

JUN 1 1954

Available water and food for flies in nature--

There are no streams of water on the island except during heavy rains. Small showers were frequent here during March and the first half of April, but since that time little rain has fallen. (I will obtain recent weather records in the near future.) However, at almost every goat pen location irrigation of fodder, vegetables and fruit trees is carried out during the time of low rainfall, which is most of the year. And, of course other irrigated areas exist throughout the island. Although many of the 100,000 people on the island are concentrated in Willemstad, homes dot the landscape of the greater part of the island. In much of the area central wells or hydrants provide water for the household, which in many cases is carried to the home. Goats are almost everywhere on the island, and of course, are within reach of water.

Mr. Bitter has had experience raising bees and he states that at no time of the year is it necessary to feed the bees because of lack of nectar from flowering plants. He also states that the average honey production of the hives each year is 5 or 6 supers.

Particularly at the various plantations it seems likely that the screw-worms will have sufficient food and water. However, it is the universal opinion of the livestock people on Curacao that increases in screw-worm cases coincides with the rainy seasons. Although the total egg masses collected each week over the island remains fairly constant, perhaps our collections do not accurately depict the island average, particularly during the dry periods, since our goatpens for the most part are located in favorable screw-worm areas.

Release by auto vs. plane--

Although release by auto may show an increase in sterile masses I don't think we could depend upon auto release entirely for eradication because of inaccessible areas particularly in the western (upper) end of the island. However, I agree that a comparison of the two methods would be of value. If the auto releases are more efficient it would indicate, possibly, that our method of aerial release should be improved rather than the adoption of release by auto.

Relative efficiency of the 5000 r and 7500 r releases--

To me the current data do not indicate a significant difference between the 5000 r and 7500 r releases. Our basic method of evaluation (collection of egg masses from the infested goats) is far from exact and perhaps my interpretation less exact. Particularly disturbing is the calculation of the sterile male density--I'm assuming that the average number released each week represents the density. It is my opinion (unfortunately not based on statistical knowledge) that a difference of 25 to 50% in efficiency between the two releases would be significant. On a weekly basis my interpretation is that the efficiency is varying from 5 to 12% in favor of the 5000 r.

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3--A.W. Lindquist, June 7, 1954

Influence of egg mass collections on local population--

Sustained egg mass collections over a period of 2 or 3 months might well significantly reduce the local population in some cases. This is suggested by a comparison of pen #2 which has fallen off considerably the past few weeks with pen #11 recently established and maintaining a high level of collections.

Influence of released males on egg mass collections--

If the females find a mate with difficulty--as suggested by our degree of success--the release of sterile males may increase egg mass collections in the treated area.

Intervals of dropping--

The present number of 170 sacks dropped on the average each flight over 122 to 133 miles release distance represents 1 sack every $3/4$ mile. If the original plan to release 400 sterile males/sq.mi./wk. had been followed the dropping interval would have been $3/16$ mile. Perhaps it would have been advisable to drop the 100/sq.mi. at more frequent intervals.

I personally feel that we have sufficient chance of success to go ahead with the eradication attempt. Since it would be difficult if not impossible to demonstrate more rapid eradication with one procedure than the other unless other infested islands are used, I feel that most of the many questions could best be worked out in Florida on the basis of initial efficiency, i.e., percent sterility in relation to the natural population and length of time to deplete the natural population to a non-detectable level. Of course natural fly movement would interfere, but neither are we free from fly movement on the two halves of Curacao.

On the other hand the questions you propose need to be answered and your decision in regard to time and place is readily accepted.

In a radiotelephone conversation with Mr. Graham, June 7, 1954 plans were made for the feeding vs. not feeding and auto vs. plane test to begin with the shipment to be made June 8th and released on June 11th. He stated that they were having further difficulty obtaining eggs from the Curacao strain, which may mean a delay in the comparison of the Curacao and Texas strains. In that case several weeks more might advantageously be allotted to the new test beginning June 11th.

Recently the local veterinarian visited the island of Aruba, and he states that screw-worms are present on the island, but not in as a great a number as on Curacao. When time permits I plan to visit the island to verify the report.

cc: R. C. Bushland
A. J. Graham
G. W. Eddy

A. H. Baumbach

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cc: R. C. Bushland
A. J. Graham
G. W. Eddy

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

June 15, 1954

JUN 18 1954

Postbox 85
Curacao, N. A.

To: Dr. ^R. C. Bushland

From: A. H. Baumhover

Subject: Weekly Report - Curacao

Egg Mass Collections
Number of fertile and sterile egg masses at goat pens

	1		2		3		4		5		6		7		8		9		10		11		Totals		
Date	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	
6/7	2	1	1	0	2	2	0	0	0	0	0	0	0	0	4	2	3	0	0	0	7	3	19	8	
8	3	1	4	0	3	1	3	0	0	0	0	0	0	2	0	5	0	9	0	0	0	9	1	38	3
9	8	2	3	0	4	2	3	0	1	0	0	0	3	0	5	0	3	0	0	0	6	3	36	7	
10	2	1	2	1	4	2	0	0	0	0	1	0	2	0	2	2	4	0	0	0	5	2	22	8	
11	2	0	6	1	2	1	1	0	1	0	1	1	1	0	6	0	2	0	0	0	7	2	29	5	
12	1	0	0	0	7	1	5	0	0	0	0	0	2	0	5	1	1	0	0	0	8	0	29	2	
13	<u>3</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>5</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>3</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>2</u>	<u>25</u>	<u>3</u>	
	21	5	19	2	27	9	14	0	4	0	3	1	11	0	30	6	22	0	0	0	47	13	198	36	

Flies released (males)

6/7 5000 r 4650
7500 r 4900

6/8 5000 r 3864
7500 r 4230

Interpretation of data

	5000 r (Pens 1,2,3, 4,5, & 10)	7500 r (pens 6,7, 8,9, & 11)
Number of fertile egg masses	85	113
Number of sterile egg masses	16	20
Sterility	16%	15%
Average number of masses/pen/day	2.17	3.80
Estimated natural population density/sq.mi.	120	209
Sterile male density/sq. mi.	87	89
Theoretical sterility	59%	46%
Efficiency	27%	33%

cc: A.W. Lindquist
A.J. Grahm

A.H. Baumhover

cc: G.W. Lindquist
A.J. Graham

Efficiency 27%
Theoretical sterility 59%
Sterile male density/sp. mi. 37
Estimated natural population density/sp. mi. 120
Average number of masses/pen/day 2.17
Sterility 15%
Number of sterile egg masses 80
Number of fertile egg masses 113
5000 r (Pena 1, 2, 3, 4, 5, & 10) 82
7500 r (Pena 6, 7, 8, 9, & 11) 113

Interpretation of data

7500 r 4900
5000 r 4650
7500 r 4230
5000 r 3884

Flies released (males)

Egg Mass Collections																							
Number of fertile and sterile egg masses at host pens																							
1		2		3		4		5		6		7		8		9		10		11		Totals	
F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
2	1	1	0	2	2	0	0	0	0	0	0	0	0	4	2	3	0	0	0	0	7	19	8
3	1	4	0	3	1	3	0	0	0	0	0	2	0	5	0	3	0	0	0	2	1	38	3
6	2	3	0	4	2	3	0	1	0	0	0	3	0	5	0	3	0	0	0	6	3	36	7
2	1	2	1	4	2	0	0	0	0	1	0	2	0	2	2	4	0	0	0	5	2	23	6
2	0	6	1	2	1	1	0	1	0	1	1	1	0	6	0	2	0	0	0	7	2	29	5
1	0	0	0	7	1	5	0	0	0	0	0	2	0	5	1	1	0	0	0	8	0	29	2
3	0	3	0	5	0	2	0	2	0	1	0	1	0	3	1	0	0	0	0	5	2	25	3
21	5	19	2	27	9	14	0	4	0	3	1	11	0	30	6	22	0	0	0	47	18	198	36

Number of fertile and sterile egg masses at each pen
Egg Mass Collections

Subject: Weekly Report - Curacao

From: A. H. Baumhover

To: Dr. J. C. Bushland

Curacao, N. A.
Postbox 86

June 15, 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
Entomology Research Branch
Agricultural Research Service

June 18 1954

S. W. Erskine Curacao

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch
Postbox 85, Curacao, N. A.

June 22, 1954

To: R. C. Bushland
From: A. H. Baumhover
Subject: Weekly report-Curacao

EGG MASS COLLECTION DATA
Number of fertile and sterile egg masses at goat pens

Date	1		2		3		4		5		6		7		8		9		10		11		Totals	
	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
6/14	7	1	1	0	3	1	4	0	0	0	3	0	0	0	3	0	1	0	0	0	5	0	27	2
15	1	0	1	0	0	0	5	1	0	0	0	0	1	1	6	1	3	0	0	0	7	0	24	3
16	3	2	3	0	5	0	0	0	0	0	0	0	2	0	5	0	1	0	0	0	6	0	25	2
17	3	0	2	0	5	0	2	0	0	0	3	0	0	0	8	0	1	0	1	0	4	2	29	2
18	0	0	1	0	5	0	0	0	0	0	2	0	0	0	3	2	0	0	2	0	5	2	18	4
19	2	0	1	0	6	0	0	0	0	0	0	0	2	0	2	2	0	0	1	0	5	0	19	2
20	<u>1</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>8</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>4</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>7</u>	<u>0</u>	<u>25</u>	<u>0</u>
Total	17	3	11	0	32	1	11	1	0	0	8	0	6	1	31	5	8	0	4	0	39	4	167	15

Flies released--None (Last release 6/8/54)

	5000 r (pens 1,2,3, 4,5, & 10)	7500 r (pens 6,7,8, 9, & 11)
Number of fertile egg masses	<u>75</u>	<u>92</u>
Number of sterile egg masses	5	10

AH Baumhover

cc: A. W. Lindquist
A. J. Graham

UNITED STATES DEPARTMENT OF AGRICULTURE
 Agricultural Research Service
 Entomology Research Branch
 Postbox 85, Curacao, N. A.

June 22, 1954

To: R. C. Bushland

From: A. H. Baumhover

Subject: Weekly report-Curacao

EGG MASS COLLECTION DATA

Number of fertile and sterile egg masses at host pens

Date	1	2	3	4	5	6	7	8	9	10	11	Totals
6/14	1	1	3	4	0	3	0	3	1	0	0	27
15	1	1	0	5	0	0	1	6	3	0	0	24
16	3	3	5	0	0	0	2	5	1	0	0	25
17	3	2	5	2	0	3	0	8	1	1	4	29
18	0	1	5	0	0	2	0	3	0	2	5	18
19	2	1	6	0	0	0	2	2	0	1	5	19
20	1	2	8	0	0	0	1	4	2	0	0	25
Total 17	3	11	32	11	1	0	8	31	8	4	39	167

Flies released--None (last release 6/8/54)

Number of fertile egg masses
 Number of sterile egg masses

5000 r (pens 1, 2, 3, 4, 5, & 10) 78
 7500 r (pens 6, 7, 8, 9, & 11) 92
 10

cc: A. W. Lindquist
 A. J. Graham

A. H. Baumhover

S. W. Enad Curacao

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

JUL 6 1954

Postbox 85, Curacao, N.A.

June 29, 1954

To: R. C. Bushland

From: A. H. Baumhover

Subject: Weekly Report - Curacao

EGG MASS COLLECTION DATA
Number of fertile and sterile egg masses at goat pens

Date	1		2		3		4		5		6		7		8		9		10		11		Totals	
	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S	F	S
6/21	2	0	0	0	4	1	1	1	0	0	0	0	0	0	2	2	0	0	0	0	2	0	11	4
22	1	1	0	0	4	0	0	0	0	0	0	0	2	0	2	0	2	2	1	0	3	0	15	3
23	1	0	0	0	9	0	0	0	0	0	0	0	1	0	4	0	3	0	0	0	5	0	23	0
24	0	0	0	0	2	0	3	0	0	0	0	0	2	0	1	0	1	0	3	0	6	0	18	0
25	1	2	0	0	2	0	3	0	0	0	0	0	1	0	3	1	2	0	2	0	0	0	14	3
26	1	1	0	0	7	0	0	0	0	0	0	0	1	0	2	0	1	0	0	0	4	0	16	1
27	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>7</u>	<u>2</u>
Total	7	4	0	0	31	2	7	1	0	0	0	0	7	0	15	4	9	2	6	0	22	0	104	13

Flies released--none

5000 r (pens 1,2,3, 4,5 & 10) 7500 r (pens 6,7,8, 9 & 11)

Number of fertile egg masses
Number of sterile egg masses

51
7 53
6

Receipt of your memorandum of July 28 is acknowledged and we are in complete agreement with your proposals. However, I do not understand the following sentence in your second paragraph "(Be sure to put the 100 males on the same half you used previously for this rate.)"

In view of your instructions to feed all the flies I would like to suggest to Mr. Graham that that they decrease the amount of excelsior in the sacks, since it may be difficult for some of the flies to reach the honey-water mixture.

cc: A.W. Lindquist, A.J. Graham

AH Baumhover

JUL 6 1954

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Entomology Research Branch

Postbox 85, Curacao, N.A.

June 29, 1954

To: R. C. Bushland

From: A. H. Baumhover

Subject: Weekly Report - Curacao

EGG MASS COLLECTION DATA

Number of fertile and sterile egg masses at each pens

Date	1	2	3	4	5	6	7	8	9	10	11	Totals
6/21	2	0	0	1	0	0	0	2	0	0	2	11
22	1	0	0	0	0	0	2	2	2	1	3	15
23	1	0	0	0	0	0	1	4	3	0	5	23
24	0	0	0	0	0	0	2	1	1	3	6	18
25	1	0	0	0	0	0	1	3	2	2	0	14
26	1	0	0	0	0	0	1	2	1	0	4	16
27	1	0	0	0	0	0	0	1	0	0	2	7
Total	7	4	0	0	0	0	7	15	8	8	22	104

Flies released--none

5000 r (pens 1,2,3, 4,5 & 10)
7500 r (pens 6,7,8, 9 & 11)

Number of fertile egg masses
Number of sterile egg masses

51
7

53
8

Receipt of your memorandum of July 28 is acknowledged and we are in complete agreement with your proposals. However, I do not understand the following sentence in your second paragraph "Be sure to put the 100 males on the same half you used previously for this rate." In view of your instructions to feed all the flies I would like to suggest to Mr. Graham that they decrease the amount of excretor in the sacks, since it may be difficult for some of the flies to reach the honey-water mixture.

cc: A.W. Lindquist, A.J. Graham

AH Baumhover